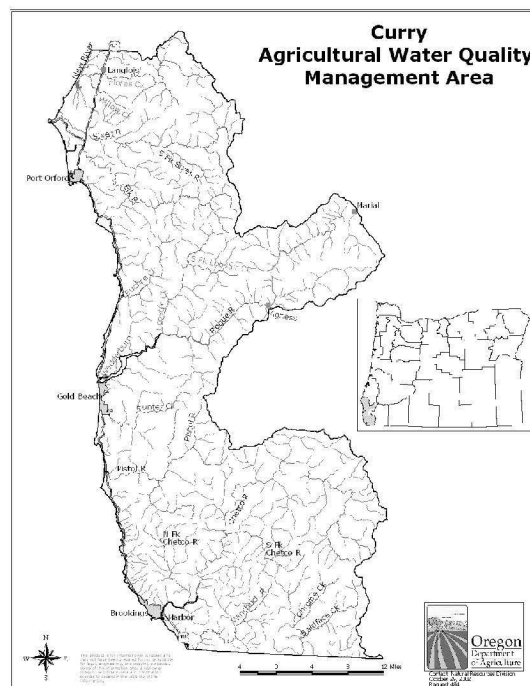


CURRY COUNTY

**AGRICULTURAL WATER QUALITY
MANAGEMENT AREA PLAN AND RULES**

**BIENNIAL REPORT TO THE
OREGON STATE BOARD OF AGRICULTURE**

MAY 12, 2006



Purpose

This report, submitted by the Curry Local Advisory Committee (LAC), summarizes the implementation of the Curry County Agricultural Water Quality Management Area Plan and Rules (Area Plan and Rules) since their adoption in 2004.

I. Introduction

The Curry County Agricultural Water Quality Management Area (Management Area) includes agricultural and rural lands, except those that are federally managed, within all Curry County drainages and the Floras Creek drainage that extends into Coos County.

The Curry County Agricultural Water Quality Management Area Plan and Rules were adopted following the listing of several stream segments within the Management Area on the Department of Environmental Quality's (DEQ) 303d (water quality limited) list. The LAC, working with ODA and the Curry County Soil and Water Conservation District (SWCD), developed the Area Plan and Rules. Members of the LAC asked to include a statement in this report that the riparian Area Rule developed by the LAC was replaced with a rule developed by ODA, and was adopted with strong objections from the LAC.

Landowners in Curry County have a long history of implementing watershed health improvement practices. The Curry County SWCD, Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA), watershed councils, and OSU Extension Service have been key local partners with landowners to accomplish these improvements.

II. Background

Summary of the Curry County Agricultural Water Quality Management Area Plan

Area Plan Goal

To set forth agricultural management opportunities that result in the continued protection of water quality in the watersheds of Curry County.

Area Plan Objectives

- Protect water quality by limiting, to the extent feasible, undesirable conditions from agricultural practices.
- Raise public awareness of agriculture's contribution in protecting water quality.
- Provide public involvement opportunities to share information about positive agricultural management practices.
- Have a plan that is developed locally, supported by the local people, implemented voluntarily, and which achieves regulatory water quality mandates for agricultural practices.

Strategies to Achieve Area Plan Goal and Objectives

The main Area Plan implementation strategies in the Management Area are outreach and education, technical assistance to complete farm plans and conservation practices, and incentives for water quality improvement activities. The Curry County SWCD, acting as the Local Management Agency, is the lead organization responsible for implementing these strategies.

ODA believes monitoring and evaluation are also important to ensure implementation meets the Area Plan goal of water quality protection. Several

agencies and organizations are conducting monitoring within the management area.

Summary of the Curry County Agricultural Water Quality Management Area Rules

In addition to the voluntary strategies listed above, Administrative Rules were developed for the Management Area to be used as regulatory backstops if needed. Oregon Department of Agriculture will use regulatory means where necessary to gain compliance with the Area Rules, but will take enforcement actions only when reasonable attempts at voluntary solutions have failed.

The Curry County Area Rules require landowners in the Management Area to:

- Avoid causing pollution from agricultural activities.
- Allow establishment, growth, and maintenance of riparian vegetation along perennial streams consistent with site capability to provide streambank stability and shade.

III. Watershed Enhancement Activities

The Curry SWCD has worked closely with federal agencies, local watershed councils, and OSU Extension to implement a variety of on-the-ground projects, educational activities, and monitoring programs. This report summarizes the accomplishments of the SWCD and many partner agencies in cooperation with landowners.

Curry County SWCD Activity Summary, 2004-2006

Farm Planning

- 9 NRCS-approved farm plans were completed representing 2,518 acres. Two more plans are in progress representing 355 acres. In March of 2005, farm planner Joe Brown resigned. The SWCD hired Beth Pietrzak to fill

the position. With no formal training program available until 2007, Beth had to work hard to find information to help her learn the planning process. In spite of this difficulty, she completed two plans in her first year – in part due to her considerable Geographic Information Systems expertise.

- 37-acre forest management plan was developed for a landowner.
- Assistance provided with developing a waste management plan for a dairy operation.
- New willow planting technique developed utilizing a rock drill, which resulted in double the total plantings per day.
- Helped promote the recent signup for the Conservation Security Program.

Outreach & Education

The District assists with support for the local Forage and Nutrition Group (FANG). Member landowners attend monthly discussion series led by Dr. Woody Lane, a livestock nutritionist based out of Roseburg. The group is also conducting a nitrogen fertilizer study to examine the potential loss of nitrogen to groundwater. The project will continue through June, 2006, and a workshop will be held in July or August to report the results. Funding for this project comes from ODA and Sustainable Agriculture Research and Education.

The newsletter “Curry Currents” was sent out regularly. The 2005 winter issue was also published on the website www.currywatersheds.org, and the link was emailed to 136 contacts (in addition to the 168 regular mailings).

The Curry Weed Advisory Board sponsored a booth at the county fair for the last two summers.

The SWCD sponsored a water quality, soil fertility, and riparian grazing seminar in the summer of 2005. 26 people attended. The District also partnered with the Coos SWCD to offer a pasture and riparian weed management workshop. There were 54 attendees.

With the help of ODA funds, work is underway to add an agriculture information page on the website shared with the South Coast and Lower Rogue Watershed Councils (www.currywatersheds.org). This page will provide information tailored to the unique needs of area agriculture operators and small-acreage landowners. Such topics include landowner technical assistance programs, weed control, agricultural water quality, and helpful links.

Fiscal Agent

A primary role for the SWCD is that of fiscal agent to the South Coast and Lower Rogue watershed councils. This frees the councils to direct staff time and energy towards developing projects, securing funding, and putting work on the ground. Over the last two years, this partnership has made it possible to accomplish a suite of on-the-ground restoration projects, including the following.

- *Large wood placements:* 120 large whole logs were placed in a total of 11 streams, including Bethel Creek; Keller Creek (Sixes); Langlois Creek; Hubbard Creek; Ranch Creek (Rogue) and Jack Creek (Chetco).
- *Fish Passage:* Opened up over 5 miles of salmon habitat with projects seven creeks, including Hubbard Creek, upper Sixes River, and Jack Creek.
- *Fencing/off-stream watering projects:* 2 miles of fence and 2 off-stream watering facilities installed.

- *Tree planting:* 20,000 native trees planted across 10 watersheds to provide shade and stabilize stream banks. Trial plots established to evaluate alternative maintenance and planting treatments.
- *Car Crusher:* An Oregon Watershed Enhancement Board (OWEB) small grant project to remove old abandoned cars. This effort removed 270 cars, almost 1500 tires, 14 barrels of fluids, and 340 car batteries.
- *Education & Outreach:* Presentations and field days sponsored in all the county's elementary schools to enrich and expand existing science programs. Started Adopt-A-Stream activities in Port Orford, Gold Beach, and Brookings.
- *Sediment abatement:* 26 culvert replacements have helped prevent erosion caused by undersized culverts. 4 livestock management bridges placed and 220 acres of hillslope pasture treated for gully development. 160 stream crossings monitored.
- *Survey/assessment:* 10 miles of small streams surveyed for coho; 40 miles of private road networks surveyed; 5.5 miles of streams surveyed to monitor 5-year old wood projects; 12 miles of river (Sixes and Winchuck) surveyed for Japanese knotweed; Floras Creek watershed gorse assessment conducted with help of 10 landowners; all existing riparian plantings (65 miles) assessed to help with developing riparian planting prescriptions.
- *Estuary monitoring:* Dawn to dusk sampling on six estuaries primarily to investigate oxygen and pH activity. Estuaries sampled were the Winchuck River (2004), Hunter Creek (2004), Rogue River (2005), Euchre Creek (2005), Elk River (2005), and Sixes River (2004). Parameters studied were dissolved oxygen, BOD, pH, temperature, salinity/conductivity,

turbidity, and nutrients. Funding for data analysis has been secured through the Oregon Department of Environmental Quality.

- *Stormchasers:* This two-year monitoring program utilized volunteers throughout the county to collect samples within a specified window of time immediately following six high rainfall storms. Three storms were sampled during winter/spring of 2004-2005 and two have been sampled so far in 2005-2006. Parameters measured include turbidity, conductivity, nutrients, and e.coli.
- *Temperature monitoring:* The councils also retrieved temperature data from 70 thermometers as part of a 2004 monitoring program.
- *Weed management:* Japanese knotweed treated for two consecutive years along one mile of Crystal Creek. 95% average kill rate. Floras Lake sampled for phytoplankton and an aquatic weed inventory conducted.
- Formed the Curry Weed Advisory Board. Projects include developing a county weed list, conducting weed inventories, successful application for Title II funds through the Coos Bureau of Land Management Resource Advisory Committee (RAC); additional applications submitted to RAC for county road and riverway weed inventories; partnership with Coos SWCD for weed workshop; presentations at Master Gardeners club, local garden club, and state garden club; participating with the southwest Oregon Resource Conservation And Development Council regional weed management effort; licensing a public herbicide applicator and working to develop a cost-share program for herbicide application and weed management plans; and facilitating

development of the Sixes Weed Management Area.

- *Wetland restoration:* Completed the Wahl wetland restoration project.
- *GIS:* Digitization of the Councils' existing monitoring, project, and assessment data for the production of maps for field work, data analysis, presentations, reports, etc.

Natural Resource Conservation Service and Farm Service Agency Funding Programs

The Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) administer several federal conservation funding programs and provide technical assistance to landowners who enroll. Programs in Curry County include the following.

- The Conservation Reserve Enhancement Program (CREP), funded jointly by the Farm Service Agency and OWEB, provides cost-share and rental payments for landowners who restore riparian areas. As of March 31, 2006, Curry County has 15 CREP contracts representing 440 acres.
- The Conservation Security Program (CSP), available through NRCS, provides incentive payments to landowners who meet certain natural resources stewardship criteria. A recent sign-up on the South Coast resulted in 79 total contracts in Coos and Curry Counties representing 29,121 acres.
- The Environmental Quality Incentives Program (EQIP), available through NRCS, provides cost-share payments to help landowners implement water quality improvement projects.

Curry County OSU Extension Service Accomplishments

The Curry County OSU Extension Service conducted the following educational programs and activities from July, 2004 through May, 2006 to support watershed restoration and water quality improvement in Curry County, Oregon.

Weed Control

In an effort to raise public awareness of the problem of invasive weeds and help re-establish an active and functional Curry County Weed Board, OSU and several volunteers put together an invasive weed booth for the Curry County Fair in 2004. Staff and volunteers interacted with 271 visitors to our booth over the 4 days of the Fair.

Water Quality Monitoring

- Frank Burris, Curry County Watershed Extension Agent, was appointed by the Governor's office to Chair a group to sample bacterial contamination of Harris and Mill beaches in the Brookings, Oregon area. OSU Extension collaborated with the Oregon Institute of Marine Biology and the South Slough National Estuarine Research Reserve on a \$151,035 DEQ 319 proposal to fund coordinated monitoring of beach bacteria on beaches along the south coast of Oregon. Funding has been secured, and staff have been sampling along the beaches at different tide levels and in relation to different intensity storm events, and along upslope tributaries to attempt to characterize whether bacterial contamination is primarily marine or terrestrial in origin since the fall of 2005. Following completion of sampling an educational program will be

developed to address sources of contamination that are identified during this study.

- Frank Burris of OSU Extension continued to Chair the Curry County Water Quality Management Advisory Council to direct the collection of water quality data throughout Curry County by the South Coast and Lower Rogue Watershed Councils.

Education and Outreach

- Curry County OSU Extension Service coordinated, hosted, and taught the Wetlands and Estuaries classroom and field sessions of a Master Watershed Stewards program for Coos and Curry Counties from January through April 2005 at the South Slough National Estuarine Research Reserve Visitor's Center in Charleston. Eleven students became Watershed Stewards through this program and 8 of those students are conducting 40-hour watershed restoration or monitoring programs to earn the title of Master Watershed Stewards.
- Frank Burris of OSU Extension taught "Water Conservation in the Garden" to 17 students at Southwest Oregon Community College in Coos Bay, Oregon on January 20, 2005.
- Frank Burris wrote numerous articles on watershed restoration and health issues on the South Coast of Oregon for the Extension Connection section of three south coastal newspapers, the Curry Coastal Pilot, the Curry County Reporter, and the Port Orford News. Articles included the following.
 - "Downstream problems related to storm-water mismanagement." 1/13/2005
 - "Water quality and Estuary management" 4/7/05

- “Estuary ecology and management” 5/5/05
 - “Ocean and freshwater ecology on the South Coast of Oregon and their effects on salmonid survival, growth, and reproduction.” Four part series published 8/31/05, 9/22/05, 12/15/05, and 2/1/06.
 - OSU Extension coordinated a Natural Resources Field Day for 5th grade students in Curry County in April 11, 2006. Students learned about local natural resources including wetlands, water quality, aquatic invertebrates, fish hatchery production and other topics.
 - OSU coordinated with the South Coast and Lower Rogue Watershed Councils and Pat Corcoran, OSU Extension Sea Grant, to conduct a session for watershed council members on June 3, 2005 in Gold Beach to build the capacity of local watershed councils as “learning organizations.”
 - Frank Burris gave a presentation on Estuaries to 21 campers at Humbug Mountain State Park on July 16, 2005.
 - OSU Extension, DEQ, Department of Land Conservation and Development, and others organized a Gravel Extraction Workshop that was held in Charleston, Oregon on April 12th and 13th, 2006. We focused on what is known about the ecology of gravel extraction, what critical pieces we need to know, and how to manage gravel extraction operations to minimize their affect on fisheries and water quality. The workshop was attended by 85 participants.
 - Frank Burris conducted a tour of a wood chip nutrient removal system to improve water quality at a cranberry farm near Sixes, OR for several new SWCD and NRCS employees on June 2nd, 2005.
 - OSU Extension co-hosted a conference on June 6, 2005 in Langlois, Oregon
- entitled “Nutrient Management for Livestock Operators”, and Frank Burris presented a paper outlining the results from an on-going study of water quality in relation to cattle production entitled “Livestock Grazing and Water Quality in Curry County.” 38 participants attended this conference.
- OSU Extension used Title III funds to hire a Coordinator to organize and conduct a Watershed Science Symposium on April 11, 2006 for middle and high school students to present the results of their original watershed research to an audience of their peers, parents, and community members. Over 230 students from Coos and Curry counties attended the 2006 Symposium. There were 28 student presentations of original watershed research that was conducted by 43 students throughout the two counties.
 - Frank Burris taught 15 students in Ms. Mendez’ natural resources management class in the Gold Beach High School how to use aquatic macro-invertebrates to determine water quality in Riley Creek from November 28 to December 1, 2005, and Wetland and Estuary function and management from December 14-15, 2005.
 - Frank Burris taught “Water Use and Conservation in the Garden” to 33 potential Master Gardeners in Coos County and 28 students in Curry County on February 2nd and 3rd, 2006, respectively.

Technical Assistance

- OSU Extension designed, sought permits for, and supervised construction of a bank stabilization/fish habitat enhancement structure for a landowner on Saunders’ Creek with significant input and design help from Matt

Swanson, South Coast Watersheds Council.

- Frank Burris completed restoration and post-project monitoring of a wetland restoration project to improve water temperature and quantity in the North Fork of Floras Creek in 2006. Following data analysis and write-up, the information on ground water increases due to wetland restoration will be published in a peer-reviewed journal.

Resource Planning

Frank Burris served as watershed processes expert and outside reviewer for the South Coast Watersheds Council Action Plan review and update on January 19 in Gold Beach. The group produced a prioritized 2006-2010 Action Plan for Curry County watersheds for the SCWC at this meeting.

The OSU and University of Connecticut Extension Services collaborated to conduct a series of Low Impact Growth Scoping meetings in communities throughout Oregon in April, 2006 to assess the need for educational programs to improve planning and ordinances to reduce urban stormwater quality problems in Oregon. The group met in Portland/Metro on April 23rd, Grants Pass on the 24th, and Brookings on the 25th. Feedback from these meetings will be used to design a stormwater and growth management education program to guide development in Oregon so it has the smallest possible impact on local water quality.

Complaints

The Oregon Department of Agriculture received two complaints about potential water quality problems during the past two years. One related to potential water quality concerns from a horse facility. Staff conducted preliminary research on this complaint and determined there were no

potential water quality issues on the property and an onsite investigation was not necessary. The second complaint related to a private well allegedly being discolored by a cranberry bog expansion. The complainant was referred to OSU Extension and a subsequent conversation between the complainant and the cranberry operator resolved the issue.

IV. Curry County Area Plan and Rules Review Process

On May 9, 2006, the LAC met for its first biennial review and update of their Area Plan and Rules. Management Area landowners representing agricultural commodities (cattle, sheep, cranberries, lily bulbs) serve on the LAC. Other interests include timber owners and Oregon State University Extension Service. The following LAC members participated:

- Ted Fitzgerald
- Becky Crockett
- Harry Harms
- Walt Schroeder
- Earl Lang
- Robert McKenzie
- Frank Burris
- Mike Knapp
- Knute Andersson
- Lee Riddle
- George Fleming
- Jim Donaldson

The LAC agreed to remove a paragraph from the Area Plan regarding a random survey of agricultural lands for the biennial review. The LAC also agreed to remove the words “do not support native trout” from the riparian area rule. However, ODA responded that it is necessary to leave these words in the rule to address a comment submitted by the Oregon Department of Environmental Quality on the proposed rules in 2004.

Expanded Background – history and legal basis for Area Plan and Rules adoption

The Curry County Agricultural Water Quality Management Area Plan and Rules were adopted in 2004, pursuant to Oregon Revised Statute (ORS) 568.900 - .933. This statute authorizes the Department to designate management areas and to develop and adopt plans and rules for areas which the Department of Environmental Quality (DEQ) has identified and listed water quality limited streams or stream segments on Oregon's 303(d) list and has established, or intends to establish, Total Maximum Daily Loads (TMDLs).

Several stream segments in the Curry County Management Area are on the DEQ's 2002 303(d) list of water quality limited waterbodies for temperature. Temperature TMDLs will be developed for the Chetco, Sixes, and Lower Rogue watersheds.

While not a triggering action for plan and rule adoption, the Southern Oregon/Northern California Evolutionarily Significant Unit of Coastal Coho present in the Management Area are listed as "Threatened Species" under the Endangered Species Act (ESA). Area rules for improved riparian conditions and water quality support the recovery efforts for these species.